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cond transmitted within one frame is susceptible to errors being caused by bad transmission conditions.

Replace paragraph beginning on page 3, line 3 with the following paragraph.

A3 It is advantage of the present invention, that it facilitates highly protected and highly reliable signaling requiring only a minimum of bits. It is another advantage of the present invention, that it easily allows the detection of the signaling bits as the synchronization already available from the transmission system and the frame structure of the transmission system is used for the signaling information.

Replace paragraph beginning on page 14, line 13 with the following paragraph.

A4 Fig. 1 shows data structure for signaling information according to the present invention, especially information on the AMR coding mode called coding mode in the following. The structure shown represents the signaling from the fixed part of the radio network to the mobile part, i.e. data are transmitted from the fixed part to the mobile part. User data, i.e. speech, is being source coded in a speech coding step 101 using one mode of available modes for speech coding according to the selected coding mode. By example, six different coding modes can be used. In this case three bits are necessary for coding the six different coding modes. When the transmission is started the pre-selected coding mode can be the coding mode offering the lowest bit rate for speech. The coding mode can be changed if necessary as will be explained later. According to the selected coding mode the speech coded data from step 101 is channel coded together with at least one additional bit derived from a multi-frame signaling step 102 in a channel coding step 104, forming speech and multi-frame signaling bits 106. The additional bit from step 102 is a part of the three bit information used for coding additional signaling information. In the present example it represents the six different coding modes available or measurement information. In this example it takes three frames within a multi-frame of six frames, as e.g. defined and used according to the GSM standard, to transmit the coding mode information as within each frame only one of three bits is transmitted, thus providing additional protection for the transmitted coding mode information. Due to the fact that the one bit used per frame is in addition protected by the channel coding step 104, total protection is further increased.

Replace paragraph beginning on page 5, line 20 with the following paragraph.

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If, instead of the above described transmission direction from the fixed part of the radio network to the mobile part (downlink), the transmission direction is reversed to the direction from the mobile part to the fixed part of the network (uplink), the actual mode bits 105 also contain the coding mode used for the respective frame as coded in the mobile part, but the multi-frame signaling bits 102 transmitted in three consecutive frames contain a quality measurement of the downlink, as measured by the mobile part at reception thereof. For the measured quality of the downlink eight different levels can be assigned as three bits are used for multi-frame signaling.

Replace paragraph beginning on page 6, line 1 with the following paragraph.

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Looking now to Fig. 2, the data structure for signaling as explained above will be explained in greater detail. Fig. 2 shows the signaling for nine consecutive data frames 0 to 8. In the example shown it is assumed that the fixed part of the network and the mobile part use the same coding mode for the transmission of data in downlink and uplink, this is also referred to a symmetrical operation. It should be noted that it is also possible that the fixed part of the network uses a coding mode for the downlink different from the coding mode used by the mobile part for uplink. In this case an actual mode signaling codeword for the downlink is different in general compared to an actual mode signaling codeword for the uplink. The table of Fig. 2 has in its first column the frame number of the transmitted data frame; in its second column the three bit actual mode codeword used for signaling of the coding mode for the downlink; in its third column the multi-frame signaling bit used for characterizing the coding mode command for the uplink sent in the downlink; in its fourth column the three bit actual mode codeword used for signaling of the coding mode for the uplink; in its fifth column the multi-frame signaling bit of the uplink used for characterizing the transmission quality of the downlink as received and measured by the mobile part; and in its sixth column the action regarding change of used coding mode.

Replace paragraph beginning on page 7, line 21 with the following paragraph.

A7
Fig. 3 is a schematic diagram of a system for signaling information according to this invention. A fixed part of the network 1 and a mobile part 2 are depicted. Both parts